



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/702,038

11/06/2003

Kouichi Katou

P21-163397M/YS

9362

21254

7590

10/20/2005

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

BOSWELL, CHRISTOPHER J

ART UNIT

PAPER NUMBER

3676

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,038

Applicant(s)

KATOU ET AL.

Examiner

Christopher Boswell

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,4 and 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25 and 26 and rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent Number 6,120,069 to Taranto.

Taranto discloses a lock apparatus for attaching a container member to a support member openably, the lock apparatus comprising an operation handle (16), a spring (28) which is movably supported by the container member, a slide pin (26) which is urged in a direction of a lock hole defined on the support member by the spring (figure 4), and a cam member (30) to which a rear end portion of the slide pin is fitted, to urge the each slide pin to project and retract (column 3, lines 33-39), and when the operation handle is operated in a swing manner, a front end portion of the each slide pin is retracted from the each lock hole of the support member against pressure of the each spring (column 2, lines 58-64), an engagement groove (62) are defined on opposed surfaces of a front end portion of the cam member having a cylindrical portion (figure 4), a rear end portion (40) of the slide pin is formed in a bifurcated structure (48) comprising elastic pieces, each of said elastic pieces comprises a protrusion (64 and 65) for detachably engaging with the engagement holes, and rotation of said slide pin with respect to the cam member disengages the protrusions from the engagement holes (column 3, lines 57-62), as in claims 25 and 26. However, Taranto does not disclose engagement holes. It would have been

Art Unit: 3676

obvious to one with ordinary skill in the art at the time the invention was made to use engagement holes instead of an engagement groove, as they are functional equivalents.

Claims 1-2, 5-9, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,120,069 to Taranto, in view of U.S. Patent Number 6,913,297 to Jackson et al.

Taranto discloses the invention substantially as claimed. Taranto discloses a lock apparatus for attaching a container member to a support member openably, the lock apparatus comprising an operation handle (16), a spring (28) which is movably supported by the container member, a slide pin (26) which is urged in a direction of a lock hole defined on the support member by the spring, respectively (figure 4), and a cam member (30) to which a rear end portion of the slide pin is fitted, to urge the each slide pin to project and retract (column 3, lines 33-39), and when the operation handle is operated in a swing manner, a front end portion of the each slide pin is retracted from the each lock hole of the support member against pressure of the each spring (column 2, lines 58-64), and a cam groove on the cam member (the ramp on the triangular element on the cam member), as in claim 1. However, Taranto does not disclose an O-ring on the cam member. Jackson et al. teaches of an O-ring (122) disposed within a latch assembly by means of a containing groove (120) that is recessed to isolate the O-ring, as in claim 7, in the analogous art of latch assemblies having compound movement for the purpose of creating a fluid-tight seal between a shaft and a bore in the housing. It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate an O-ring, as taught by Jackson et al., in to the lock apparatus of Taranto where the O-ring would slide-contact with an outer cylindrical member of the handle (internal on the handle that actuates the

Art Unit: 3676

cam member) and a cylindrical portion of the cam member simultaneously in order to create a fluid-tight seal between a shaft and a bore in the housing.

Taranto also discloses the rear end portion of the slide pin is connected to the cam member to be swingable (column 3, lines 33-39), as in claim 2, as well as a projected portion (the triangular element projecting from the cam member) on the outer cylindrical member, wherein the projected portion moves in the cam groove and the cam groove is on the cylindrical portion of the cam member groove (figure 3), as in claims 8 and 9.

Wherein an engagement groove (62) is defined on opposed surfaces of a front end of the cam member (figure 4) having a cylindrical portion, as in claim 22, where the rear end portion of the slide pin is formed in a bifurcated structure (figure 4) comprising elastic pieces (62 and 64), as in claim 23, and where the elastic pieces comprise a protrusion for detachably engaging with the engagement groove (figure 4), as in claim 24. However, Taranto does not disclose engagement holes. It would have been obvious to one with ordinary skill in the art at the time the invention was made to use engagement holes instead of an engagement groove, as they are functional equivalents.

Claims 10-12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taranto, in view of Jackson et al.

Taranto discloses a lock apparatus for attaching a container member to a support member openably, the lock apparatus comprising an operation handle (16), a spring (28) which is movably supported by the container member, a slide pin (26) which is urged in a direction of a lock hole defined on the support member by the spring (figure 4), and a cam member (30) to

Art Unit: 3676

which a rear end portion of the slide pin is fitted, to urge the each slide pin to project and retract (column 3, lines 33-39), and when the operation handle is operated in a swing manner, a front end portion of the each slide pin is retracted from the each lock hole of the support member against pressure of the each spring (column 2, lines 58-64), an engagement groove (62) are defined on opposed surfaces of a front end portion of the cam member having a cylindrical portion (figure 4), a rear end portion (40) of the slide pin is formed in a bifurcated structure (48) comprising elastic pieces, each of said elastic pieces comprises a protrusion (64 and 65) for detachably engaging with the engagement holes, and rotation of said slide pin with respect to the cam member disengages the protrusions from the engagement holes (column 3, lines 57-62), as in claims 10-12. However, Taranto does not disclose engagement holes. It would have been obvious to one with ordinary skill in the art at the time the invention was made to use engagement holes instead of an engagement groove, as they are functional equivalents.

However, Taranto also does not disclose an o-ring on the cam member. Jackson et al. teaches of an O-ring (122) disposed within a latch assembly by means of a containing groove (120) that is recessed to isolate the O-ring, in the analogous art of latch assemblies having compound movement for the purpose of creating a fluid-tight seal between a shaft and a bore in the housing. It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate an O-ring, as taught by Jackson et al., in to the lock apparatus of Taranto where the O-ring would slide-contact with an outer cylindrical member of the handle (internal on the handle that actuates the cam member) and a cylindrical portion of the cam member simultaneously in order to create a fluid-tight seal between a shaft and a bore in the housing.

Art Unit: 3676

Taranto also discloses the slide pin swings about an axis that is substantially perpendicular to an elongate axis of said slide pin (figures 3-6), as in claim 21.

Allowable Subject Matter

Claims 3-4 and 13-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The claims are allowable over the prior art of record because the teachings of the references taken as a whole do not teach or render obvious the combination set forth, including that of a stopper piece between the elastic pieces of the slide pin.

Response to Arguments

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 3676

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Boswell whose telephone number is (571) 272-7054. The examiner can normally be reached on 9:00 - 4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJB CB
October 14, 2005



BRIAN E. GLESSNER
SUPERVISORY PATENT EXAMINER